Virginia Department of Forestry
BMP Effort, Implementation, and Effectiveness Field Audit
•
November 2005

Introduction

The twenty-second semi-annual forestry Best Management Practice (BMP) field audit was conducted by the Virginia Department of Forestry (DOF) in November 2005. The audit had three purposes: (1) to identify current levels of *effort* in attempting to use BMPs, whether or not BMPs meet technical specifications, (2) to identify current levels of *BMP implementation* as compared to the technical BMP implementation standards documented in the DOF BMP handbook titled *Forestry Best Management Practices For Water Quality In Virginia*, (3) to identify *effectiveness* levels for BMPs that have been implemented to DOF standards.

Methods

A total of 40 timber harvests were randomly selected from the timber harvests listed in the DOF information system as having been inspected by DOF or industry cooperators between June 1, 2005 and November 15, 2005. Timber harvests were selected from inspections made in each of DOF's six regions.

After site selection, team members divided up, traveled to their assigned timber harvests, and inspected them. Local DOF field personnel helped each team member locate their assigned sites. Information was collected at each site using a standard *BMP Effort, Implementation, and Effectiveness Audit Sheet.*

Findings

Efforts to implement BMPs were evident at 98% of inspected timber harvests, up from the 97% recorded in June 2005, *(fig.1)*. Quality of effort, rated on a scale of 1(poor) to 5(excellent), averaged 3.2, up from the 3.0 average of June 2005. Implementation of all necessary BMPs to DOF standards occurred at 18% of inspected sites, down from the 23% recorded in June 2005 *(fig. 2)*.

Fig. 1: Has An Effort Been Made To Apply BMPs, Regardless Of Meeting Technical Specifications?

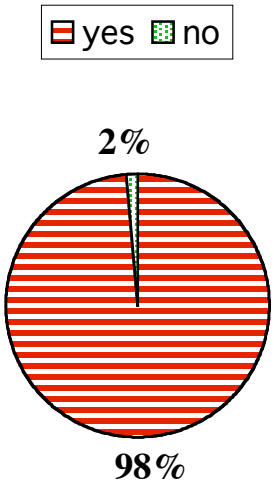
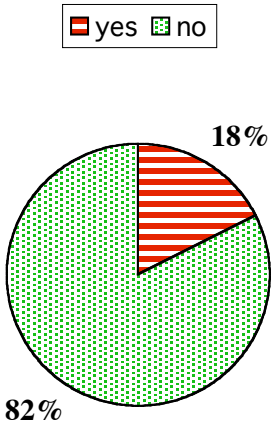


Fig. 2: Were All BMPs Applied To Technical Specifications As Expressed in The BMP Manual?



Active sedimentation existed at 3% of the inspected sites, down from the 7% recorded in June 2005, *(fig. 3)*. The potential for sedimentation was noted at 10% of the inspected sites, down from the 13% noted in June 2005, *(fig. 4)*.

Of the 40 randomly inspected harvests that did not have all necessary BMPs in place, 28 lacked sufficient water control structures or had water control structures installed that did not meet DOF standards. In these instances, water bars, rolling dips, and broad based dips were absent, improperly designed, or improperly spaced. Culverts were too small, improperly installed, or not installed.

Fig. 3: Does Active Sedimentation Exist Now Because BMP Technical Specifications Were Not Met?

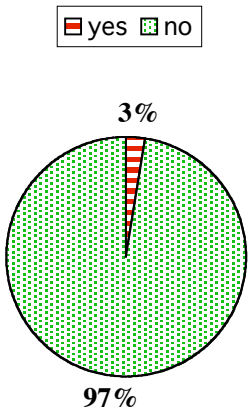
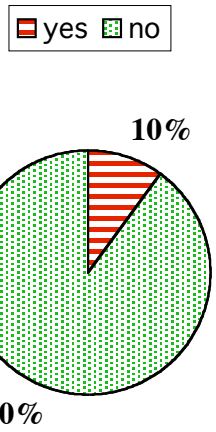


Fig. 4: Does The Potential Exist For Active Sedimentation To Develop Because BMP Technical Specifications Were Not Met?

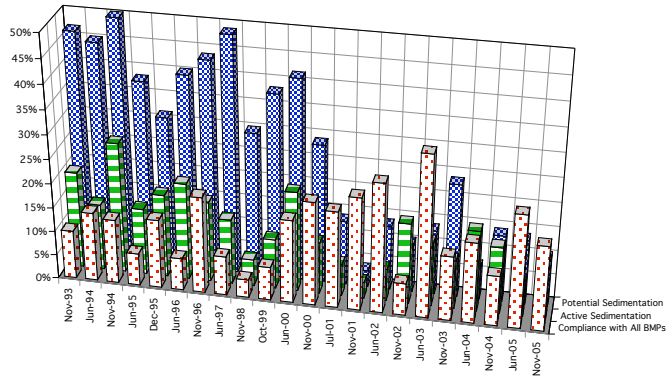


Vegetative cover was inadequate at 27 of the randomly inspected sites. Seeding had either not taken place, or was done in a manner that did not generate sufficient vegetative cover, defined as at least 70% coverage of disturbed mineral soil.

Stream crossings were inadequate at 12 of the randomly inspected harvests. These crossings did not have adequate bridges, culverts or sufficient natural rock to be considered acceptable rock fords.

Rutting in excess of BMP standards had occurred at 18 randomly inspected harvests.

Fig. 5: Three Trends



Skid trails or haul roads were too steep at 9 of the randomly inspected timber harvests.

Streamside management zones (SMZs) were inadequate at 16 of the randomly inspected timber harvests. Either no SMZ had been retained along a perennial stream, or trees within sections of the SMZ had been removed so that a continuous corridor of trees containing not less than 50 square feet of basal area, uniformly distributed for a minimum of 50 feet on each side of a stream, was not present.

Oil spills or excessive on site trash were found at 4 of the randomly inspected timber harvests.

More information about the November 2005 BMP Audit may be obtained from members of the audit team.

The Audit Team

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